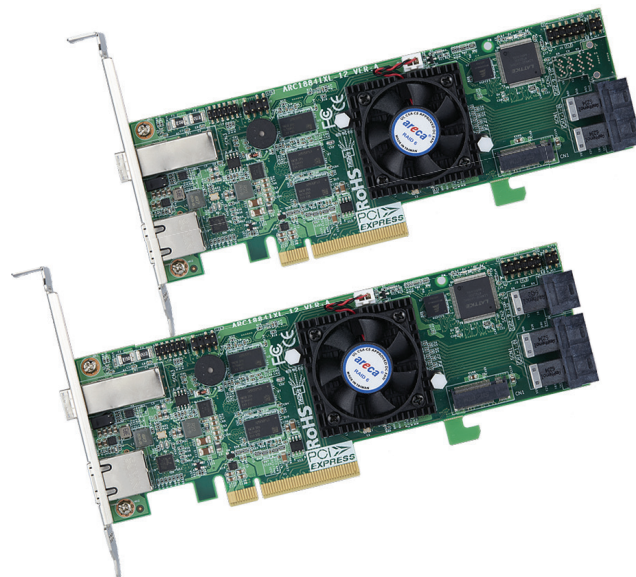


## ARC-1884ixl-8/12

(12/16 Ports 12Gb/s SAS RAID Adapters)

The new third generation ARC-1884ixl family offers advanced technology for increased performance and improved enterprise data protection. They were designed with 1.2 GHz dual core ROC processor, DDR3-1866 memory architecture and PCIe 3.0 interface for the most performance-hungry database and IT applications. The ARC-1884ixl family includes 8 ports low profile as well as 12 ports low profile with additional 4 external ports with SFF-8644 connectors for 12Gb/s throughput on each port. System Integrators and users can put the ARC-1884ixl-8/12 in a 2U rackmount chassis without the use of a riser card.



### Highlights

- Supports up to (512) 12Gb/s SAS, SATA or SSD drives using SAS expanders
- 12Gb/s throughput at each drive ports
- Support up to 2GB DDR3-1866 cache
- SES2, SMP and SGPIO enclosure management
- Redundant flash image for adapter availability
- Multiple RAID 0 and RAID 10 (1E) support (RAID 00 and RAID100)
- Online capacity expansion, RAID level/stripe size migration
- Broad operating support including Windows, Linux (open source), FreeBSD (open source) and VMware

### Unparalleled Performance

The 12Gb/s SAS RAID controllers raise the standard to higher performance levels with several enhancements including new high performance 1.2 GHz dual core ROC processor, a DDR3-1866 memory architecture and high performance PCIe 3.0 interface bus interconnection. The low profile controllers by default support on-board 2G of ECC DDR3-1866 SDRAM memory. The 12Gb/s SAS is designed for backward compatibility with 6Gb/s and 3Gb/s SAS and SATA hard drives. Regardless of the drive speed, 12Gb/s SAS RAID controllers will provide maximum read/write performance improvements for the most performance-hungry database and IT applications. The "Write Cache Amount" function is for controller to configure how much cache SDRAM dedicated for read, and how much for write. By default (Unified), the size of read or write cache is automatically assigned by the controller firmware.

### Maximum Interoperability

The 12Gb/s SAS RAID controller support broad operating system including Windows, Linux (Open Source), FreeBSD (Open Source), VMware and more, along with key system monitoring features such as enclosure management (SES-2, SMP, & SGPIO) and SNMP function. Our products and technology are based on extensive testing and validation process; leverage ARC-1882/1883 series controller field-proven compatibility with operating systems, motherboards, applications and device drivers.

### Unsurpassed Data Availability

Designed and leveraged with Areca's existing high performance RAID solution, ARC-1884ixl provides superior levels performance and enterprise level data protection for the most demanding next-generation server and storage environments. It supports the hardware RAID 6 engine to allow two HDDs failures without impact the existing data and performance. It allows users to hot swap drive in the event of a drive failure with zero downtime. ARC-1884ixl also supports traditional Lithium-ion (Li-ion) battery backup module (BBM) to protect cached data on RAID adapters.

### Easy RAID Management

The controllers contain an embedded McBIOS RAID manager that can access via hot key at M/B BIOS boot-up screen. This pre-boot McBIOS RAID manager can use to simplify the setup and management of RAID controller. The controller firmware also contains a browser-based McRAID storage manager which can be accessed through the Ethernet port or ArcHttp proxy server in Windows, Linux, FreeBSD and more environments. The McRAID storage manager allows local and remote for all storage configuration and management needs from standard web browser. The Single Admin Portal (SAP) monitor utility can support one application to scan multiple Areca RAID units in the network.

## Adapter Architecture

- Dual Core RAID-on-Chip (ROC) 1.2GHz processor
- PCIe 3.0 x8 lane host interface
- 2GB on-board DDR3-1866 SDRAM with ECC
- Write-through or write-back cache support
- Support read/write cache allocation by policy
- Support up to 8/12 internal or 4 external 12Gb/s SAS ports
- Multi-adapter support for large storage requirements
- BIOS boot array support for greater fault tolerance
- Supports up to 512 SATA or SAS devices using SAS expanders
- Boot support for the uEFI host BIOS
- NVRAM for RAID event & transaction log
- Redundant flash image for controller availability
- Battery backup module (BBM) ready (optional)
- RoHS compliant

## Monitors/Notification

- System status indication through global HDD activity/fault connector, individual activity/fault connector, LCD/I<sup>2</sup>C connector and alarm buzzer
- SMTP support for email notification
- SNMP support for remote manager
- Enclosure management (SES-2, SMP and SGPIO) ready

## Operating System

- Windows 8/10 or higher
- Linux / FreeBSD / XenServer / unRAID
- VMware 6.x (support CLI in-band management utility)

## Environment

Operating	Temperature: +5°C to +60°C Humidity: 10-85%, non-condensing
Storage Temperature	Temperature: -40°C to 70°C Humidity: 5-90%, non-condensing

## Electrical

Power Dissipation	12W
ARC-1884ixl-8/12	18W

## RAID Features

- RAID level 0, 1, 10(1E), 3, 5, 6, 30, 50, 60, Single Disk or JBOD
- Multiple RAID 0 and RAID 10(1E) support (RAID 00 and RAID100)
- Multiple RAID selection
- Configurable stripe size up to 1MB
- Support HDD firmware update
- Online array roaming
- Online RAID level/stripe size migration
- Online capacity expansion and RAID level migration simultaneously
- Online volume set growth
- Instant availability and background initialization
- Support global and dedicated hot spare
- Automatic drive insertion/removal detection and rebuilding
- Support for native 4K and 512 byte sector SAS and SATA devices
- Support intelligent power management to save energy and extend service life
- Support NTP protocol synchronize RAID controller clock over the on board Ethernet port
- Multiple pairs SSD/HDD disk clone function
- SSD automatic monitor clone (AMC) support
- SED (self-encrypting drives) function support

## RAID Management

- Field-upgradeable firmware in flash ROM

### In-Band Manager

- Hot key "boot-up" McBIOS RAID manager via M/B BIOS
- Web browser-based McRAID storage manager via ArchHttp proxy server for all operating systems
- Support Command Line Interface (CLI)
- API library for customer to write monitor utility
- Single Admin Portal (SAP) monitor utility

### Out-of-Band Manager

- Firmware-embedded web browser-based McRAID storage manager, SMTP manager, SNMP agent and Telnet function via Ethernet port
- API library for customer to write monitor utility
- Support push button and LCD display panel (optional)

For more information & latest supported OS listing visit [www.areca.com.tw](http://www.areca.com.tw)

Model Name	ARC-1884ixl-8	ARC-1884ixl-12
I/O Processor	Dual Core RAID-on-Chip 1.2GHz	
On-Board Cache	2GB on-board DDR3-1866 SDRAM	
Drive Connector	2 x SFF-8643 1 x SFF-8644	3 x SFF-8643 1 x SFF-8644
Drive Support	Up to 512 12Gb/s SAS or 6Gb/s and 3Gb/s SAS/SATA HDDs/SSD, using 12Gb/s SAS Expander	
Management Port	In-Band: PCIe /Out-of-Band: BIOS, LCD and LAN Port	
Enclosure Ready	Individual Fault Header, SGPIO, SMP and SES2	
FBM/BBM Support	ARC-6120BA-T121-12G	
Power Dissipation	18W	
Form Factor(LxH)	190 x 64.4 mm	



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